

Becoming a Power Saver with the Green Homes Challenge involves taking a number of steps over a period of time. Some of them are fun, some are educational, and some may require trips to the hardware store and do-it-yourself projects. It's a great family learning activity and a way to engage your children and teach some good lessons along the way. The steps are organized in a progressive fashion, but you don't have to do them in order, nor do you have to take every action in each step! A few are required for Power Saver Certification, but you can pick and choose the ones most suited to you and earn Green Points towards the total needed for certification: 50 Green Points will get you there!

### Power Saver Steps

- 1 Register and Become More Power-Aware
- 2 Prepare for Your Home Energy Audit
- 3 Schedule and Conduct Your Home Energy Audit
- 4 Complete Your Home Energy Action Plan & Project
- 5 Track Your Energy Use
- 6 Implement Additional Energy Saving Actions
- 7 Volunteer & Leadership Options and Bonuses
- 8 Submit Your Power Saver Certification Form!



Of the three Green Homes Challenges, Power Saver is the most challenging one to complete but it may generate the most rewards and savings for your household! You won't be able to complete it in a week; for some really motivated people it might take a little as a month or two, for others it may take a year! It's not a race. Our goal is to provide enough structure, support and follow-up to help you stay motivated and on track-- we understand that all your household members are engaged in lots of other pressing matters and activities! Take it one step at a time, and if you ever have questions or need help, contact the Green Homes Challenge Coordinator at [GreenHomes@FrederickCountyMD.gov](mailto:GreenHomes@FrederickCountyMD.gov).

### The Most Efficient Way to Use your Handbook

One great thing about this Power Saver Handbook is that it links you to dozens of online resources, tools, and how-to videos. But those resources won't be very handy if you are using the hard-copy version of the Handbook alone. Even the most dedicated won't enjoy typing long URLs into their web browser. To get the most out of your Handbook, use it in tandem with the online Power Saver Handbook so you can simply click on the links to helpful tools, resources, and videos. You can open or download the online Power Saver Handbook at [www.FrederickCountyMD.gov/GreenHomes](http://www.FrederickCountyMD.gov/GreenHomes). Another benefit of using the online Handbook is that it will add up your Green Points for you!

### Symbols used in the Power Saver Handbook



A stamp denotes a Required Action for Power Saver Certification



Green leaves denote the number of Green Points earned for Power Saver steps completed, and the relative environmental benefit of the energy saving actions in the catalog.



Hammers denote the relative amount of effort needed to implement an energy saving action in the catalog

Dollar signs denote the relative cost of implementing an energy saving action



No cost



<\$100



\$100 - \$500



\$501 - \$2,000



>\$2,000

## Step 1:

### Register and Become More Power-Aware

Signing up will make you more likely to stay engaged and informed. Getting started and learning with others is motivating and just more fun!

**Total points available: 3**



#### Register with the Green Homes Challenge

Fill out and submit the Green Homes Challenge Power Saver Registration Form in Appendix B or online at [www.FrederickCountyMD.gov/GreenHomes](http://www.FrederickCountyMD.gov/GreenHomes).



#### Attend a Powerware Party



At these small group gatherings, you will become more “power-aware” through activities, demonstrations of energy saving devices, and discussions about how to save energy and money at home. Powerware Parties are offered monthly in Winchester Hall, 12 E. Church Street, downtown Frederick. Check the online schedule [www.FrederickCountyMD.gov/GreenHomes](http://www.FrederickCountyMD.gov/GreenHomes) or call the GHC Coordinator at 301-600-6864 for dates and times.

In addition to the regularly scheduled meetings, you can host a Powerware Party for friends, co-workers, or neighbors. Party hosts receive special incentives and extra Green Points toward Power Saver Certification (see Step 7 for details).



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#### Take the Green Homes Challenge Pre-Survey

This online survey will inform you about your level of awareness and action in the areas of energy, green living practices and renewable energy. This is an important required step; by taking this survey you'll be helping to evaluate the effectiveness of the Green Homes Challenge! Take the survey at [www.FrederickCountyMD.gov/GreenHomes](http://www.FrederickCountyMD.gov/GreenHomes).



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## Step 2:

### Prepare for Your Home Energy Audit

Learning more about home energy audits and assessing your current energy use will motivate you to be more engaged in the process and more interested in the outcome.

Total points available: 2



#### Learn what to expect and how to prepare for your home energy audit

The home energy audit is the best way to learn how you can save energy in your home and stop wasting money on utility bills that are higher than they need to be. To learn what to expect and how to prepare for the audit, go to the Energy Circle website, [www.energycircle.com/learn/home-energy-audits](http://www.energycircle.com/learn/home-energy-audits) and read the following topics:

- What to Expect from Your Home Energy Audit
- How to Prepare for your Audit
- Auditor Distinctions: Exclusive Auditor vs. Comprehensive Contractor
- Finding a Home Energy Auditor: The Questions to Ask
- Guide to Energy Audit Certification

DOE Energy Savers also has information for preparing for a home energy audit and how the different assessment tests work. Read about it at: [tinyurl.com/mz6tm2](http://tinyurl.com/mz6tm2)



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#### Try out some great online home energy analyzers

##### Allegheny Power's Watt Watchers Online Analyzer

This web-based self-service option presents you with home efficiency and conservation recommendations for managing your energy costs. Upon completion, you have the option of receiving a reward of four CFLs!

([www.alleghenypower.com/EngConserv/MD/WattWatchers/OnlineAnalyzer.asp](http://www.alleghenypower.com/EngConserv/MD/WattWatchers/OnlineAnalyzer.asp))

**The Energy Guide** provides a Fast Track and an In Depth Analysis of your energy use, providing you with pinpointed recommendations on what to do to begin saving energy now. You can also calculate how much money you can save by replacing appliances. ([www.energyguide.com/audit/haintro.asp](http://www.energyguide.com/audit/haintro.asp))

**Energy Star Yardstick:** If you have five minutes and your last 12 months of utility bills, use the ENERGY STAR Home Energy Yardstick to compare your home's energy efficiency to similar homes across the country and get recommendations for energy-saving home improvements from ENERGY STAR. You will also need to enter some basic information about your home (such as zip code, age, square footage, and number of occupants). If you don't have your bills, contact your utility for a 12-month summary.

(Energy Star Yardstick: [tinyurl.com/22udoks](http://tinyurl.com/22udoks))



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## Step 3:

### Schedule and Conduct Your Home Energy Audit

A home energy audit is the best way to find out how your home is currently performing and the best place to start making energy saving improvements.

Total points available: 3



#### Choose the type of audit you want

There are several options for conducting your home energy audit including signing up through the Allegheny Power Watt Watchers Program, hiring a professional auditor, or doing it yourself. Make your selection below:

##### Professional Energy Audit Options:

- **Watt Watchers Check-Up Audit:** This audit provides an in-home walk-through consultation and report. A BPI certified auditor approved by Allegheny Power will survey your home's insulation, duct work, water heating, cooling and heating systems and overall efficiency. Thanks to EmPower Maryland, there are no additional fees for this audit if you accept a kit of energy saving devices including CFLs, a low-flow showerhead and faucet aerators valued at \$40. If you do not accept the kit, the audit will cost \$40. Call **1-877-928-8928** to schedule an audit.

Note: If you are an electric heating customer, be sure to inquire about the 15% rebate, up to \$1,000, for additional insulation and air sealing costs! You auditor will need to fill out the rebate application.

- **Watt Watchers Comprehensive Audit:** In addition to the walk-through consultation by a BPI certified auditor and kit of energy saving devices, the Comprehensive Audit includes a blower door test and thermal imaging. The value of this audit is \$500, but thanks to the EmPower Maryland program, homeowners are only charged \$140. Call **1-877-928-8928** to schedule an audit. If you are an electric heating customer, see note above about the 15% rebate for additional insulation and air sealing!

Note: You can receive a free Watt Watchers Comprehensive Audit by hosting a Powerware Party at home, work or in your community. See Step 7 for details.

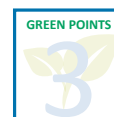
- You may prefer to research and select your own auditor. You can use [www.LeafKey.com](http://www.LeafKey.com) or Maryland Home Performance [www.mdhomeperformance.org](http://www.mdhomeperformance.org) to find an auditor serving Frederick County.



##### Do-It-Yourself Options:

If you are handy and prefer to do things yourself, you can conduct your own home energy audit. Here are some options:

- Follow the steps in The Carbon Contest's DIY Energy Audit which will guide you on a home inspection tour from the exterior to the interior and from bottom to top:  
[tinyurl.com/2d4vwx5](http://tinyurl.com/2d4vwx5)
- Follow DOE's Energy Savers guidelines for a DIY Home Assessment:  
[tinyurl.com/m2dh2a](http://tinyurl.com/m2dh2a)



Set the date and complete the audit.

My audit is scheduled for

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<date>  
with

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<auditor/  
company name>

## Step 4:

### Complete Your Energy Saving Action Plan & Project

Energy Audits by themselves don't save energy! It's time to plan and take action!

Total points available: 4



#### Complete Your Energy Saving Action Plan

After discussing your home energy audit findings with your auditor, identify one priority home improvement project that will result in significant energy and utility bill savings for your household. This should be a project your household could commit to completing in the next 6 months.

Document the information on your Energy Action Plan form in Appendix B. Include additional actions you would like to complete over the next year. If you need help installing the energy saving devices provided by your Watt Watchers auditor, please note that on the form as well and contact the Green Homes Challenge Coordinator.

#### Incentives and Loans for Energy Efficiency Projects

Be sure to consider local, state and federal incentives.

- If you heat your home with electricity, be sure to ask your auditor about the 15% Watt Watchers rebate (up to \$1,000) for adding insulation and air sealing. Your auditor will need to fill out part of the application.
- If you need a loan to complete your project, learn about the **Maryland Clean Energy Loan Program** at: [tinyurl.com/2fq7fv4](http://tinyurl.com/2fq7fv4).  
Unsecured loans (no collateral required) of up to \$20,000 are available for 10 year terms.
- For the latest on Maryland incentives, visit [tinyurl.com/29axb4j](http://tinyurl.com/29axb4j).
- For the latest on federal incentives, visit [www.energytaxincentives.org/](http://www.energytaxincentives.org/).



I/we completed our  
Energy Saving Action  
Plan on

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My/our completion  
date goal for our  
Energy Saving  
Project is

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#### Complete Your Energy Saving Home Improvement Project

If you're not implementing your project yourself, you may need assistance finding a certified contractor. Some home energy auditing companies also provide retrofit or general contracting services. Alternatively, you can look for certified contractors by using the listing at Maryland Home Performance with EnergyStar at [www.mdhomeperformance.org](http://www.mdhomeperformance.org) or searching [www.Leafkey.com](http://www.Leafkey.com).



My/our Energy  
Saving Project was  
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## Step 5:

### Track Your Energy Use

When you track your energy use and compare it to previous months, you become more power-aware and conscious of how you use energy!

Total points available: 5



#### Sign up with Frederick County's custom Earth Aid portal



Earth Aid is a great online tool that:

- Plots your household energy use by month and billing period,
- Compares your energy use to the previous year, or baselines, and awards points for reductions,
- Allows you to redeem your points with incentives from local businesses,
- Incorporates social networking to allow you to invite friends, create groups, and compare energy use, and
- Provides a comprehensive list of energy saving actions ("Tips" on the website) from which you can
  - Compile a personal To-Do List, and an Actions Completed List,
  - Link to more information about the value of taking a specific action,
  - Link to federal, state, local and utility incentives and rebate programs, and
  - Link to products that may be needed to complete an action.

Go to [www.earthaid.net/FrederickCounty](http://www.earthaid.net/FrederickCounty) and register today<sup>1</sup>!



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#### Read your power meter monthly and submit kWh usage to Allegheny Power



You've probably noticed that Allegheny Power does not read your meter every month; for those months between meter readings, an estimate is calculated. Not having actual monthly readings will make it hard to determine whether or not you are saving energy compared to the previous year. Earth Aid will give you a more accurate picture of your energy usage and savings when it uses actual, not estimated, data.

You can read your own meter each month and use the phone (call 1-800-255-3443 and say "meter reading") or internet to submit it to Allegheny Power ([www.alleghenypower.com/meterreading](http://www.alleghenypower.com/meterreading)). Instructions are on the back of your power bill. The window of time during which you should submit your reading is printed below the usage graph on your bill. Try to read your meter on roughly the same date each month and put a reminder on your calendar. If your meter has dials, remember to always report the lower number if the hand falls between two numbers.



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<sup>1</sup>NOTE! Earth Aid tracks energy data from your actual utility bills. You will need to have an online account with your utility provider for Earth Aid to work. You will also need to provide your online accounts' usernames and passwords just one time so that Earth Aid can access your monthly utility bill data. Earth Aid can only see what you see on a monthly utility statement: How much energy you've used, and how much the utility company has charged you. By signing up, you are allowing Earth Aid to "read your meter," track your energy use and report back to you on the amount you save over time. Earth Aid does not have access to any information related to the payment of your utility bills. Earth Aid takes both the security and privacy of your information seriously. Only you can see your energy and water consumption information unless you choose to share it with others. As per Earth Aid's membership agreement, they do not share your personally identifiable information with third-parties without your explicit consent.



## Consider a home energy monitoring device



Watching how much energy is being used in your home in real-time can really promote energy savings! Several new products on the market include wireless devices that monitor energy data from your electricity meter; some provide dashboards that you can monitor on your computer. For a live demonstration, visit

[demo.theenergydetective.com/Footprints.html](http://demo.theenergydetective.com/Footprints.html)

To learn about home energy monitoring devices or view available products, visit [www.thepowermeterstore.com](http://www.thepowermeterstore.com).



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## Step 6:

### Implement Additional Energy Saving Actions

Now it's time to implement other energy saving actions that together can save you bundles of energy and lower your utility bills.

**You determine the number of points earned!**

**Total Points Available: 86**

### You have a couple of options for earning Green Points

1. **Use the Catalog of Energy Saving Actions found in the following section.** Total the Green Points you earn along the way and enter them in the column to the right. If you are working towards Power Saver Certification, don't forget to include your total on the Certification Form.
2. **Use the TIPS pages on Earth Aid** and keep track of the actions you have completed. Count up the Green Points assigned to each action and enter the total in the column to the right and also on the Power Saver Certification Form. The TIPS pages also provide links to find or purchase items you may need to complete your actions.  
([www.EarthAid.net/FrederickCounty](http://www.EarthAid.net/FrederickCounty))
3. **Use a combination** of the Earth Aid actions and the following catalog. Adjust your total for any overlap and enter the total above and on the Power Saver Certification Form.



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## Step 7:

### Volunteer & Leadership Options and Bonuses (Optional)

Help spread the word and inspire others! You can help others reap the benefits of saving energy through the Green Homes Challenge in two ways – and you'll earn extra Green Points for doing so! If you are one of the first 50 Powerware Party Hosts or Green Ambassadors, you may earn a free Watt Watchers Comprehensive Home Energy Audit!

**Total points available: 6**



#### Host a Powerware Party

Host a Powerware Party in your workplace, neighborhood, place of worship, or community organization. All that is involved is inviting 10 - 15 people to attend, providing refreshments, and doing a little follow-up with your guests. Green Homes Challenge staff or volunteers will lead the activities and share resources.



Take a look at the Powerware Party Host Packet in Appendix A to get a sense of what is involved.



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#### Become a Green Ambassador

If you like the idea of inspiring or motivating others to go green, consider becoming a Green Ambassador for your workplace, faith community or neighborhood organization! Green Ambassadors empower and support others in their quest to save energy, adopt green lifestyle practices, and use renewable energy. It is a flexible role with no set time commitment; use the Green Homes Challenge Resources and implement your own creative ideas as well. You may serve individually or pair up with another Green Ambassador in your designated network or community. Be creative and have fun!

Green Ambassadors may promote the Green Homes Challenge, distribute resources, coordinate activities or demonstration workshops, or coach people to achieve Power Saver Certification. Green Ambassadors receive training, support materials, and a limited number of mini-grants of up to \$500 to support their planned activities.

Take a look at the Green Ambassador Packet in Appendix A to learn more about the role and responsibilities of Green Ambassadors.



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## Step 8:

### Apply for Power Saver Certification

You met the Challenge! Congratulations! You deserve to be recognized and rewarded.

**Total Points Available: 1**



#### Fill out and submit the Power Saver Certification Form

Find the form in Appendix B or download it at: [www.FrederickCountyMD.gov/GreenHomes](http://www.FrederickCountyMD.gov/GreenHomes)

Submit the form and related documentation by email, mail, or fax to the Green Homes Coordinator at:

#### Green Home Challenge Coordinator

Frederick County Office of Environmental Sustainability

Winchester Hall

12 East Church St.

Frederick, MD 21701

[GreenHomes@FrederickCountyMD.gov](mailto:GreenHomes@FrederickCountyMD.gov)

Fax: 301.600.1050

Questions? Contact the Green Homes Coordinator at 301.600.6864 or

[GreenHomes@FrederickCountyMD.gov](mailto:GreenHomes@FrederickCountyMD.gov).



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